

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for producing a support containing polymeric receptors for determining analytes, comprising the steps of

(a) providing a support, wherein said support comprises a support body comprising at least one channel which comprises a conduit with a top, a bottom and two sides having an inlet and an outlet for passing fluid from the inlet to the outlet, and at least one reaction position in the support body, wherein said support is optically transparent at least in the region of said at least one reaction position,

(b) placing said support body between a programmable light source matrix and a detector matrix,

(c) passing liquid with building blocks for synthesizing said polymeric receptors through the channel or channels of the support body,

(d) site- and/or time-specifically immobilizing said building blocks on predetermined reaction positions in the channel or channels by illumination of said predetermined reaction positions by said programmable light source matrix, wherein the illumination position of said light source matrix is monitored by computer using said detector matrix, and

(e) repeating steps (c) and (d) until said polymeric receptors have been synthesized on the predetermined positions.

2. (Previously Presented) The method as claimed in claim 1, wherein said method produces a support which comprises defined areas, each of which contains identical receptor species.
3. (Previously Presented) The method as claimed in claim 1 wherein said channels are arranged on the surface of said support.
4. (Currently Amended) The method as claimed in claim 1 wherein said support comprises several hundred channels per support body ~~an~~ and said channels are arranged parallel to one another.
5. (Previously Presented) The method as claimed in claim 1 wherein said polymeric receptors are selected from the group consisting of nucleic acids and nucleic acid analogs.
6. (Previously Presented) The method as claimed in claim 5 wherein said building blocks are selected from the group consisting of nucleotides, oligonucleotides, nucleotide analogs and oligonucleotide analogs.
- 7-8. (Canceled).
9. (Previously Presented) The method as claimed in claim 1 characterized in that the illumination takes place via a programmable light source matrix.

10. (Previously Presented) The method as claimed in claim 1 characterized in that the pattern of polymeric receptors is determined by computer programming.

11-33. (Canceled).

34. (Previously Presented) The method as claimed in claim 1 wherein said at least one channel is a capillary channel.

35. (Previously Presented) The method for producing a support for determining analytes as claimed in claim 1 wherein said at least one channel contains a plurality of said polymeric receptors.

36. (Previously Presented) The method as claimed in claim 1 wherein said at least one channel provides a three dimensional surface area for synthesis of said polymeric receptors.